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GROSS FLOWS OF FUNDS THROUGH SAVINGS INSTITUTIONS: TRENDS AND UNDERLYING FACTORS

GROSS FLOWS OF FUNDS THROUGH LIFE INSURANCE COMPANIES*

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THE TOPIC of this paper is the recent trends and factors influencing the gross flow of savings and investment funds through life insurance companies in the United States. I think it will become apparent that the kinds of flow which must be examined in the case of life insurance are far more complex than for deposit-type savings institutions such as mutual savings banks and savings and loan associations. This complexity stems from the dual nature of life insurance both as a means of financial savings and as a form of financial protection for the families of those insured. Other savings institutions provide the medium for gathering savings and investing them in the economy; life insurance companies provide not only a medium for saving but also protection based on the spreading of risks and the calculation of life-expectancy.

During the past few years, a little-noticed trend has been emerging: life insurance companies have experienced a reduction in the net inflow of funds which may be termed "policyholders' savings." From an annual growth rate of about $7\frac{1}{2}$ per cent in the late 1940's, saving through life insurance has declined during the 1950's to a growth rate of only $5\frac{1}{2}$ per cent in 1957 and 1958. This is the lowest percentage gain since 1920 with the exception of the worst depression years—1931, 1932, and 1933. In absolute dollar terms, life insurance saving registered a drop from \$5.6 billion in 1956 to only \$5.2 billion in 1957 and \$5.3 billion in 1958.

At first glance, the explanation for this recent downturn might ap-

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pear simple, namely, that 1957 and 1958 were years of recession and unemployment and that a decline in saving might be expected to occur just as it had in 1931-33. However, there was no similar decline in the absolute amount of life insurance saving during the two earlier postwar recessions. Apparently, forces other than merely unemployment and declining incomes were at work to bring about the decline of 1957 and 1958. To look deeper into this trend for causative factors, the first part of this paper will examine, for the period since 1951, the major gross inflows and outflows of savings funds through the life insurance business, such as premiums, benefits, investment income, and expenses. The second part of this paper will continue to examine gross flows in terms of investment funds passing through life insurance companies into the capital market, including the amortization, redemption, and sale of bonds and mortgages, as well as the net inflow of new savings.

To summarize the conclusions at the outset, the principle findings of this study of the gross flows are as follows. First, a strong shift has taken place in the "product mix" of life insurance toward term insurance and away from plans with a substantial savings element, apparently stemming from public fears of inflation and a consequent reluctance to save through long-term fixed-dollar contracts. Second, in addition to whatever effect rising unemployment may have on new purchases of life insurance, an adverse effect on life insurance saving appears to result from the impact of recession on policy loans and surrender benefits. This is noticeable for both the 1953-54 and the 1957-58 recessions. Third, rising interest rates in other parts of the economy have had an adverse effect on life insurance saving because of the impact on policy loans and supplementary contracts. This factor made itself felt in 1956, when the level of employment was quite high. Finally, the impact of savings trends, interest-rate movements, and other capital-market factors acting on the gross flow of investment funds is traced out for the years 1957 and 1958.

GROSS FLOWS AND LIFE INSURANCE SAVING

The major items of gross inflow and gross outflow which produced the net accumulation of individuals' saving in life insurance for the years 1952 through 1958 are set forth in Table 1. This period has been chosen because data on a fairly complete and consistent basis are available for these years. These statistics, hitherto unpublished in this detail, are drawn from the combined annual statements of all legal reserve life insurance companies in the United States, as tabulated by the Institute of Life Insurance. A brief description of each

TABLE 1
GROSS FLOW OF SAVINGS THROUGH UNITED STATES LIFE
INSURANCE COMPANIES: ACCRUAL BASIS
(In Millions of Dollars)

| | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 |
|---|--------|--------|--------|--------|--------|--------|--------|
| Premiums— life and annuity.. | 8,322 | 8,968 | 9,448 | 10,191 | 10,885 | 11,649 | 12,177 |
| Premiums— accident and health... | 1,561 | 1,879 | 2,115 | 2,356 | 2,699 | 3,126 | 3,294 |
| Considera- tion for suppl. contracts | 707 | 737 | 777 | 794 | 778 | 774 | 818 |
| Dividends left on de- posit.... | 226 | 250 | 280 | 312 | 354 | 386 | 424 |
| Net invest- ment in- come.... | 2,160 | 2,353 | 2,590 | 2,801 | 3,063 | 3,331 | 3,492 |
| Policy loan repay- ments... | 383 | 378 | 448 | 506 | 515 | 566 | 689 |
| Miscellane- ous in- come.... | 63 | 84 | 69 | 91 | 86 | 67 | 43 |
| Gross in- flow | 13,422 | 14,649 | 15,727 | 17,051 | 18,380 | 19,899 | 20,937 |
| Life and an- nuity benefits.. | 3,448 | 3,742 | 4,060 | 4,398 | 4,796 | 5,467 | 5,900 |
| Accident and health benefits.. | 1,055 | 1,248 | 1,393 | 1,598 | 1,902 | 2,282 | 2,425 |
| Payments on suppl. contracts | 621 | 666 | 693 | 738 | 808 | 902 | 881 |
| Disburse- ment of dividends left on de- posit.... | 111 | 126 | 153 | 169 | 192 | 235 | 274 |
| Insurance commis- sions, ex- penses, taxes.... | 2,265 | 2,498 | 2,697 | 2,932 | 3,240 | 3,631 | 3,864 |
| Dividends on life policies.. | 832 | 941 | 1,062 | 1,203 | 1,304 | 1,427 | 1,517 |
| Dividends on acci- dent & health policies.. | 36 | 44 | 55 | 68 | 54 | 47 | 49 |

TABLE 1—*Continued*

| | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 |
|--|-------|-------|--------|--------|--------|--------|--------|
| Dividends to stockholders... | 59 | 92 | 91 | 105 | 135 | 137 | 153 |
| Interest on policy or contract funds.... | 10 | 11 | 13 | 15 | 18 | 22 | 25 |
| Policy loan extensions.... | 506 | 579 | 661 | 669 | 744 | 916 | 1,008 |
| Less: due and unpaid items.... | 318 | 298 | 369 | 355 | 382 | 368 | 498 |
| Gross outflow. | 8,625 | 9,649 | 10,509 | 11,540 | 12,811 | 14,698 | 15,598 |
| Net inflow of funds. | 4,797 | 5,000 | 5,218 | 5,511 | 5,569 | 5,201 | 5,339 |
| Plus: net increase in policy loans.... | 123 | 201 | 213 | 163 | 229 | 350 | 319 |
| Plus: net capital gains.... | 177 | ..... | 522 | 272 | ..... | ..... | 613 |
| Minus: net capital losses.... | ..... | 43 | ..... | ..... | 219 | 253 | ..... |
| Net increase in total assets..... | 5,097 | 5,158 | 5,953 | 5,946 | 5,579 | 5,298 | 6,271 |

category may be helpful in understanding the nature of the flows specified.

Premiums on life insurance and annuity policies constitute by far the largest single source of life company income. The data of Table 1 relate to all forms of such policies, reflecting premiums on outstanding policies as well as new business. Life companies are also important in the accident and health insurance field, and the premiums from this type of business have grown rapidly in recent years. The category shown as "consideration for supplementary contracts" represents the funds received through settlement options on life and annuity policies. The simplest example of such contracts would be the case of a widow taking her life insurance benefits in the form of monthly income for a fixed period of years or for the remainder of her life rather than as a lump-sum payment equal to the face amount of the policy. In contrast to premium income, consideration for sup-

plementary contracts is an internal flow of funds, since it arises from life insurance benefits which are turned back to the company for later disbursement rather than being paid out in cash. Dividends left on deposit are another form of internal flow, arising from policyholder decisions to leave dividends to accumulate at interest with the company.

Investment income constitutes a major form of inflow for life companies, second in amount only to life and annuity premiums. The investment income data in Table 1 are on a net basis, i.e., after deducting investment expenses, depreciation on real estate, and federal income taxes associated with investment income. Consistent data for the 1952-58 period are available only for net investment income, but more complete data on gross investment income for the preceding three years indicate that the net figures understate the gross amounts by approximately one-sixth. Showing investment income on a net basis rather than in gross terms has the effect of reducing the gross inflow of all types of income by about $3\frac{1}{2}$ per cent but has no effect upon the net inflow of funds to be discussed later.

Policy loan repayments represent the funds repaid to life companies by those policyholders who previously have borrowed against the cash value of their insurance.¹ Miscellaneous income is a fairly minor item in the gross inflow statement and consists of receipts from various operations which do not fall under the classifications listed above.

Turning next to the gross outflow side of Table 1, life and annuity benefits constitute the largest single type of disbursement. Not all these benefits are paid in cash to policyholders; as noted above, some of these benefits are converted to settlement options for supplementary contracts and appear on the inflow side of the statement. Actual payments on such supplementary contracts are shown on the outflow side of the statement in Table 1. Accident and health benefits constitute the offset to the inflow of accident and health premiums, with the difference between premiums and benefits largely accounted for by the expense of handling such business. These operations may be ignored, since the accident and health side of the life insurance business does not give rise to net savings by individuals or to any significant buildup in the assets of life insurance

1. Policy loan repayments and extensions are not shown as income and disbursements in life company annual statements, but the amount outstanding is reported as an asset of the company. In this paper they are treated as gross flows between the policyholder and the company, since the net extension of policy loans is a factor necessary in computing policyholders' saving through life insurance.

companies.² The remaining items shown on the outflow side are largely self-explanatory, except to note that dividends on life policies may be left with the company to accumulate at interest, credited toward policies, or taken in cash by the policyholder. The final item shown on the gross outflow side is a negative adjustment taking account of a number of deferrals and accruals, such as due and unpaid dividends, commissions, expenses and taxes, as well as advance premiums and other items. On balance, they result in a buildup of liabilities and must be offset against the outflows listed above to arrive at the gross outflow shown in Table 1.

The net inflow of funds resulting from these gross inflows and outflows is used in this paper as the measure of policyholders' saving through life insurance. Conceptually, the same measure of saving may be arrived at by starting with the net increase in total admitted assets, subtracting the capital gains (or adding losses), and subtracting the net increase in policy loans. This method corresponds closely to those used by Friend and Natrella and by Raymond Goldsmith as the measure of saving through life insurance.³

RECENT TRENDS IN SAVINGS FLOWS

As may be seen in Table 1, the dollar amounts of the net inflow of funds rose from \$4.8 billion in 1952 to \$5.5 billion in 1955 and edged upward only slightly in 1956. In 1957 the net inflow declined to a level of only \$5.2 billion and then recovered slightly to \$5.3 billion in 1958. This section will explore the reasons for this recent trend through an examination of the detailed gross flows.

With few exceptions, the gross flow categories presented in Table 1 show a steady upward trend in dollar term over the 1952-58 period. In this form, however, it is difficult to discern which of the flows have accelerated relatively and which have remained steady or slowed down. In order to give the dollar statistics a common denominator, the data of Table 1 have been recast in Table 2 as percentages of the total gross inflow for each year. Viewed in this way, it

2. Over the period 1952-58 inclusive, aggregate reserves against accident and health policies rose only \$376 million, largely reflecting the increased gross volume of business.

3. The definition by Friend and Natrella in their monograph *Individuals' Savings: Volume and Composition* (New York: John Wiley & Sons, 1954) also takes account of non-admitted assets and makes an adjustment for the assets and policy loans attributed to foreign policyholders. The inability to make the latter adjustment on individual flow categories has made it necessary to ignore these factors in this paper; however, the differences involved are quite small. The definition of policyholders' saving used by Raymond Goldsmith, *A Study of Saving in the United States*, Vol. II, makes still further adjustments for the increase in capital stock, liabilities to other than policyholders, and deferred and uncollected premiums.

TABLE 2
GROSS FLOW OF SAVINGS THROUGH UNITED STATES LIFE
INSURANCE COMPANIES: ACCRUAL BASIS
(As Per Cent of Gross Inflow)

| | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 |
|--|-------|-------|-------|-------|-------|-------|-------|
| Premiums—life and annuity..... | 62.0 | 61.2 | 60.1 | 59.8 | 59.2 | 58.6 | 58.2 |
| Premiums—accident and health..... | 11.6 | 12.8 | 13.4 | 13.8 | 14.7 | 15.7 | 15.7 |
| Consideration for suppl. contracts.. | 5.3 | 5.1 | 4.9 | 4.7 | 4.2 | 3.9 | 3.9 |
| Dividends left on deposit..... | 1.7 | 1.7 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 |
| Net investment income..... | 16.1 | 16.0 | 16.5 | 16.4 | 16.7 | 16.7 | 16.7 |
| Policy loan repayments..... | 2.8 | 2.6 | 2.9 | 3.0 | 2.8 | 2.9 | 3.3 |
| Miscellaneous income..... | 0.5 | 0.6 | 0.4 | 0.5 | 0.5 | 0.3 | 0.2 |
| Gross inflow.. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Life and annuity benefits..... | 25.7 | 25.5 | 25.8 | 25.8 | 26.1 | 27.5 | 28.2 |
| Accident and health benefits..... | 7.9 | 8.5 | 8.9 | 9.4 | 10.4 | 11.5 | 11.6 |
| Payments on suppl. contracts..... | 4.6 | 4.5 | 4.4 | 4.3 | 4.4 | 4.5 | 4.2 |
| Disbursement of dividends left on deposit..... | 0.8 | 0.9 | 1.0 | 1.0 | 1.0 | 1.2 | 1.3 |
| Insurance commissions, expenses, taxes..... | 16.9 | 17.0 | 17.1 | 17.2 | 17.6 | 18.2 | 18.5 |
| Dividends on life policies..... | 6.2 | 6.4 | 6.8 | 7.1 | 7.1 | 7.2 | 7.2 |
| Dividends on accident & health policies..... | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.2 | 0.2 |
| Dividends to stockholders..... | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 |
| Interest on policy or contract funds... | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Policy loan extensions..... | 3.8 | 4.0 | 4.2 | 3.9 | 4.0 | 4.6 | 4.8 |
| Less due and unpaid items..... | 2.4 | 2.0 | 2.3 | 2.1 | 2.1 | 1.8 | 2.4 |
| Gross outflow.. | 64.3 | 66.2 | 66.8 | 67.7 | 69.7 | 73.9 | 74.4 |
| Net inflow of funds.. | 35.7 | 34.1 | 31.2 | 32.3 | 30.3 | 26.1 | 25.5 |

becomes apparent that the net inflow remaining as saving with life companies has declined from about one-third of the gross inflow in 1952 to only one-quarter of gross inflow in 1958.

Premiums on life and annuity policies have declined steadily since 1952 as a percentage of gross inflow, falling from 62 to 58 per cent between 1952 and 1958. Another way to approach the trend in premium income is in relation to the *net* inflow of savings. For every \$100 of net saving in 1952, \$174 were paid in as life and annuity premiums; in 1958, \$228 of premium income were paid in against every \$100 of net savings. Although it is not possible to make a close reckoning of the composition of premiums as between those with a strong savings element and those furnishing only current protection, it is obvious that a sharp decline in the savings element has taken place. Term insurance does not produce a buildup of reserves or cash values, since premium rates are sufficient to meet benefit claims (and expenses) only during the limited term of the policy.

Some indication of the trend toward term insurance may be seen in Table 2A, which breaks down premium income by broad policy types. Plans with a large savings element—individual annuities and group annuities—have declined as a percentage of total premiums, while group life insurance, which is almost entirely term insurance, has shown rapid gains. Another approach to this question is through the composition of life insurance policies in force. According to data collected by the Institute of Life Insurance, the face amount of life insurance in force with United States life companies doubled between 1951 and 1958, rising by \$260 billion. Of that increase, three-fifths represented the growth in term insurance. As a result, term insurance rose from 31 per cent of the total to 45 per cent of total life insurance in force at the end of 1958. While life insurance in force rose by 99 per cent over these years, total life insurance premiums increased only 49 per cent, indicating a shift to less expensive plans, such as term insurance.

Still another way to assess the trend in premiums is in relation to benefit payments. While premiums have declined as a percentage of gross inflow, life and annuity benefits have risen slightly. However, the bulk of this rise has taken place in surrender benefits rather than in death or disability benefits, maturing of endowments, or payment of annuities (see Table 2B). Surrender benefits result from the surrender of a policy for the cash value accumulated in earlier years; the proceeds may be used to obtain paid-up or extended-term insurance but are more usually taken as cash. As might be expected during periods of growing unemployment, the trend of surrenders in re-

TABLE 2A*

TRENDS IN LIFE AND ANNUITY PREMIUMS OF ALL UNITED STATES
LIFE INSURANCE COMPANIES

| | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 |
|---------------------------------------|-------|-------|-------|--------|--------|--------|--------|
| In Millions of Dollars | | | | | | | |
| Industrial..... | 1,404 | 1,467 | 1,508 | 1,548 | 1,571 | 1,531 | 1,511 |
| Ordinary:..... | | | | | | | |
| Life..... | 4,948 | 5,306 | 5,614 | 6,034 | 6,504 | 7,013 | 7,410 |
| Disability... | 86 | 94 | 103 | 106 | 119 | 135 | 138 |
| Accidental death..... | 81 | 88 | 93 | 99 | 108 | 118 | 127 |
| Individual annuities.. | 247 | 259 | 235 | 238 | 230 | 223 | 230 |
| Group: | | | | | | | |
| Life..... | 709 | 823 | 921 | 1,116 | 1,290 | 1,444 | 1,567 |
| Annuities... | 847 | 931 | 974 | 1,050 | 1,063 | 1,185 | 1,194 |
| Total life and annuities premiums ... | 8,322 | 8,968 | 9,448 | 10,191 | 10,885 | 11,649 | 12,177 |
| As Per Cent of Total Premiums | | | | | | | |
| Industrial..... | 16.9 | 16.3 | 16.0 | 15.2 | 14.4 | 13.1 | 12.4 |
| Ordinary: | | | | | | | |
| Life..... | 59.5 | 59.2 | 59.4 | 59.2 | 59.8 | 60.2 | 60.9 |
| Disability... | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 | 1.1 |
| Accidental death..... | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Individual annuities.. | 3.0 | 2.9 | 2.5 | 2.3 | 2.1 | 1.9 | 1.9 |
| Group: | | | | | | | |
| Life..... | 8.5 | 9.2 | 9.8 | 11.0 | 11.8 | 12.4 | 12.9 |
| Annuities... | 10.2 | 10.4 | 10.3 | 10.3 | 9.8 | 10.2 | 9.8 |
| Total life and annuities premiums.... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| As Per Cent of Gross Inflow | | | | | | | |
| Industrial..... | 10.5 | 10.0 | 9.6 | 9.1 | 8.5 | 7.7 | 7.2 |
| Ordinary: | | | | | | | |
| Life..... | 36.9 | 36.2 | 35.7 | 35.4 | 35.4 | 35.2 | 35.4 |
| Disability... | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 |
| Accidental death..... | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Individual annuities.. | 1.8 | 1.8 | 1.5 | 1.4 | 1.3 | 1.1 | 1.1 |
| Group: | | | | | | | |
| Life..... | 5.3 | 5.6 | 5.9 | 6.5 | 7.0 | 7.3 | 7.5 |
| Annuities... | 6.3 | 6.4 | 6.2 | 6.2 | 5.8 | 5.9 | 5.7 |
| Total life and annuities premiums ... | 62.0 | 61.2 | 60.1 | 59.8 | 59.2 | 58.5 | 58.2 |

* Because of rounding, details may not add to totals shown.

lation to total benefits registered a noticeable increase in 1954 and again in 1957-58. An additional factor which may have played some part in 1957 and 1958 was the introduction by many life companies of "family-plan" policies, which were purchased heavily in those years. In taking up family-plan policies, many policyholders may have surrendered small existing policies on wife and children in the process of redesigning their insurance programs.

Supplementary contracts arising from settlement options fixed by the insured or the beneficiary have typically provided a net flow of savings to life insurance companies. In the years 1952-55, consideration received exceeded payments on supplementary contracts. However, payments have outstripped consideration received during the period 1956-58, with a resultant drain on policyholders' saving

TABLE 2B

GROSS OUTFLOW OF BENEFITS FROM UNITED STATES LIFE
INSURANCE COMPANIES: ACCRUAL BASIS
(In Millions of Dollars)

| | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 |
|--|-------|-------|-------|-------|-------|-------|-------|
| In Millions of Dollars | | | | | | | |
| Death benefits..... | 1,881 | 2,024 | 2,112 | 2,290 | 2,495 | 2,786 | 2,972 |
| Matured endow- ments..... | 441 | 475 | 543 | 615 | 656 | 733 | 760 |
| Annuity benefits... | 369 | 412 | 417 | 453 | 503 | 529 | 578 |
| Disability benefits. | 113 | 118 | 119 | 118 | 118 | 128 | 133 |
| Surrender benefits. | 644 | 714 | 869 | 922 | 1,024 | 1,291 | 1,457 |
| Total life and annuity ben- efits..... | 3,448 | 3,743 | 4,060 | 4,398 | 4,796 | 5,467 | 5,900 |
| As Per Cent of Total Benefits | | | | | | | |
| Death benefits..... | 54.5 | 54.1 | 52.0 | 52.1 | 52.0 | 51.0 | 50.4 |
| Matured endow- ments..... | 12.8 | 12.7 | 13.4 | 14.0 | 13.7 | 13.4 | 12.9 |
| Annuity benefits... | 10.7 | 11.0 | 10.3 | 10.3 | 10.5 | 9.7 | 9.8 |
| Disability benefits. | 3.3 | 3.1 | 2.9 | 2.7 | 2.5 | 2.3 | 2.2 |
| Surrender benefits. | 18.7 | 19.1 | 21.4 | 20.9 | 21.3 | 23.6 | 24.7 |
| Total life and annuity ben- efits..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| As Per Cent of Gross Inflow | | | | | | | |
| Death benefits..... | 14.0 | 13.8 | 13.4 | 13.4 | 13.6 | 14.0 | 14.2 |
| Matured endow- ments..... | 3.3 | 3.2 | 3.4 | 3.6 | 3.6 | 3.7 | 3.6 |
| Annuity benefits... | 2.7 | 2.8 | 2.7 | 2.7 | 2.7 | 2.7 | 2.8 |
| Disability benefits. | 0.8 | 0.8 | 0.8 | 0.7 | 0.6 | 0.6 | 0.6 |
| Surrender benefits. | 4.8 | 4.9 | 5.5 | 5.4 | 5.6 | 6.5 | 7.0 |
| Total life and annuity ben- efits..... | 25.6 | 25.5 | 25.8 | 25.8 | 26.1 | 27.5 | 28.2 |

in this form. It is noteworthy that the net drain has resulted from an actual dollar decline in consideration received on contracts *without* life contingencies, i.e., based on a fixed number of payments designed to spread the policy proceeds over a number of years (see Table 2C). In such contracts the interest rate used in determining the size of payments is paramount, while the life-expectancy of the beneficiary is of less importance. The fact that policy proceeds could be taken in a lump sum and placed elsewhere in the capital market at extremely attractive interest rates during the 1956-57 period may

TABLE 2C
GROSS FLOWS OF SUPPLEMENTARY CONTRACTS AND DIVIDEND ACCUMULATION
IN UNITED STATES LIFE INSURANCE COMPANIES
(In Millions of Dollars)

| | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 |
|---|------|------|------|------|------|------|------|
| <i>Suppl. contracts with life contingencies:</i> | | | | | | | |
| Consideration received..... | 135 | 150 | 165 | 176 | 178 | 193 | 204 |
| Payments incurred..... | 99 | 108 | 118 | 129 | 142 | 160 | 174 |
| Net..... | 36 | 42 | 47 | 47 | 36 | 33 | 30 |
| <i>Suppl. contracts without life contingencies:</i> | | | | | | | |
| Consideration received..... | 572 | 587 | 612 | 618 | 600 | 581 | 614 |
| Payments incurred..... | 522 | 558 | 575 | 609 | 666 | 742 | 707 |
| Net..... | 50 | 29 | 37 | 9 | - 66 | -161 | - 93 |
| <i>Dividends left on deposit:</i> | | | | | | | |
| Dividends left on deposit..... | 226 | 250 | 280 | 312 | 354 | 386 | 424 |
| Dividends and interest disbursed.. | 111 | 126 | 153 | 169 | 192 | 235 | 274 |
| Net..... | 115 | 124 | 127 | 143 | 162 | 151 | 150 |

well explain the decline in such funds left with life insurance companies. In 1958 the net drain on this account subsided somewhat, when interest rates had generally softened in the securities markets. In contrast to these developments, supplementary contracts with the size of payments related to life-expectancy continued to provide a net savings inflow during 1956-58, although in smaller amounts than in earlier years. It would appear that contracts based on insurance mortality calculations continued to be attractive, while contracts based largely on interest rates diminished in attraction relative to opportunities elsewhere in those years.

Dividends left on deposit to accumulate at interest might be expected to be sensitive to interest-rate factors but have actually

shown little noticeable change in recent years, on either a gross basis or net of disbursements. As a percentage of total gross inflow, both accumulations and disbursements have grown modestly during the period (see Table 2). In actual dollar terms there was a steady increase in net amounts left with the companies until 1957 and 1958, when a slight decline occurred (see Table 2C). This decline might be thought to stem from interest-rate trends, but the fact that 1956 was unaffected (unlike the trend in supplementary contracts) casts some doubt on this hypothesis.

Policy loan repayments and extensions may best be examined in dollar amounts with reference to Table 1. The pattern of policy loan flows is an unstable one and is apparently sensitive to short-term economic cycles. The net increase in outstanding policy loans showed a fairly sharp rise in 1953, which continued in 1954. Many observers attribute this trend to the recession of those years, with unemployed policyholders finding it necessary to meet current expenses by withdrawing part of their past savings in life insurance in the form of policy loans. With the economic recovery in 1955, the net rise in policy loans diminished as repayments rose and extensions were virtually unchanged. In late 1956 and through 1957, net policy loans again began to rise, although unemployment was of modest proportions. This latter trend may be interpreted as a response to rising costs of consumer borrowing and the tightening of credit availability. With fixed rates on policy loans and rising rates and tightened credit standards elsewhere, it appears that many policyholders drew upon their equity in life insurance to obtain funds for such purposes as down payments on houses or working capital in their businesses. The easing of interest rates in 1958 may have reversed this trend, while the rise in unemployment may have led to increased drawing upon policy loans to meet current expenses; the net increase in policy loans that year was less than in 1957 but remained high by historical standards. In any case, very little is actually known as to the purpose of policy loans, and attempts to explain their movements over this period must be through inference rather than direct evidence.

Dividends on life policies have increased slightly in relation to the gross inflow of funds, as may be seen in Table 2. Approximately four-fifths of such dividends were left with the companies either to accumulate at interest or to be applied to policies. The share of dividends taken in cash has been quite stable over these years, with the exception of 1957, when a slightly higher proportion was paid in cash.

Insurance commissions, expenses, and taxes⁴ have shown an increase relative to the gross inflow of funds to life insurance companies, rising from 16.9 per cent in 1952 to 18.5 per cent in 1958. As may be seen in Table 2D, general insurance expenses have almost entirely accounted for this rise, while commissions and insurance taxes, licenses, and fees have been fairly stable as a percentage of gross inflow. Only in 1957 did commissions register a significant gain associated with the large volume of new business that year. The increase in general insurance expenses became most noticeable after 1955 and probably reflects the cost of putting an increased volume of new policies on the books as well as the general rise in the cost of wages, salaries, and materials.

TABLE 2D
GROSS OUTFLOW OF INSURANCE COMMISSIONS, EXPENSES, AND TAXES
FOR UNITED STATES LIFE INSURANCE COMPANIES
ACCRUAL BASIS

| | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| In Millions of Dollars | | | | | | | |
| Commissions..... | 941 | 1,050 | 1,102 | 1,189 | 1,307 | 1,446 | 1,495 |
| General insurance expenses..... | 1,082 | 1,200 | 1,328 | 1,440 | 1,597 | 1,820 | 1,962 |
| Insurance taxes, licenses, fees..... | 242 | 248 | 269 | 303 | 336 | 365 | 407 |
| Total..... | 2,265 | 2,498 | 2,697 | 2,932 | 3,240 | 3,631 | 3,864 |
| As Per Cent of Gross Inflow | | | | | | | |
| Commissions..... | 7.0 | 7.2 | 7.0 | 7.0 | 7.1 | 7.3 | 7.1 |
| General insurance expenses..... | 8.0 | 8.1 | 8.4 | 8.4 | 8.7 | 9.1 | 9.4 |
| Insurance taxes, licenses, fees..... | 1.8 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 2.0 |
| Total..... | 16.8 | 17.0 | 17.1 | 17.2 | 17.6 | 18.2 | 18.5 |

The inflow from net investment income has shown a rising tendency from 1952 through 1958 in dollar terms, but a leveling-off since 1956 when expressed as a percentage of gross inflow (see Table 2). Investment income reflects the interest and dividend receipts on assets currently in portfolio, many of which were acquired during periods of relatively low interest rates. The effect of higher rates on new investments made during the more recent years is therefore damped down by the presence of earlier investments. Net investment income has become an increasingly important element in the accumulation

4. Except for 1958, federal income taxes were largely allocated against investment income rather than insurance operations and have therefore been taken into account under "net investment income" on the inflow side. Revision of the federal income tax base for 1958 results in part of the tax being shown against insurance operations in data for that year.

of savings through life insurance. Expressed as a percentage of the net inflow of savings to life insurance companies, net investment income has risen from 45 per cent of net savings in 1952 to 65 per cent in 1958. Had it not been for the gain in investment earnings resulting from the rise in interest rates, policyholders' savings would have declined even more than the record indicates.

Having examined the gross flows in some detail, it is now possible to summarize these trends in terms of their impact on the net inflow of funds, i.e., policyholders' saving through life insurance. The principal factors at work which have caused a leveling-off in 1956 and a decline to lower amounts of saving in 1957 and 1958 appear to be the following: (1) an increase in the importance of term insurance during the period under review; (2) a rise in surrender benefits, i.e., cashing in of existing policies by the insured; (3) a growing reluctance to leave policy proceeds with the company under those supplementary contracts which are based largely on interest rates; (4) an increased drawing upon equity in life insurance through the use of policy loans; and (5) a rise in general operating expenses of life insurance companies.

It is worth noting that the upward trend of interest rates since 1955 has cut both ways. While there has been an adverse effect of rising interest rates because of the impact on policy loans and supplementary contracts, the beneficial effect on net investment income has been an important factor in sustaining the net inflow of saving through life insurance.

THE GROSS FLOW OF INVESTMENT FUNDS

The accumulation of policyholders' saving with life insurance companies has its counterpart in the investment of these funds in the capital markets in the form of corporate, municipal, and Treasury bonds, common and preferred stock, mortgage loans, real estate, and miscellaneous investments. While the net inflow of new saving is balanced by a net outflow of new investment funds into the economy, the gross amounts becoming available for long-term investment are considerably larger by reason of the amortization and redemption of bonds and mortgages, outright sale of assets, and adjustments in holdings of cash and short-term investments. In the life insurance business this total volume of funds available for long-term investment is known as the "cash flow."⁵

5. In his study of cash flow through life insurance during the 1947-50 period, Harris Loewy limited his definition of cash flow to include policyholders' savings (similar to the net inflow of funds in Table 1 above) and "external savings" of borrowers through

Total cash flow in recent years has been approximately double the amount of new money arising from net saving by policyholders, as may be seen in Table 3. The net inflow of funds has been carried forward from Table 1 and adjusted for the accrual of due and uncollected premiums and investment income, in order to approximate a cash basis for this flow. The remaining data of Table 3 are estimates based on the cash flow reports submitted to the Life Insurance Association of America by thirty-nine life companies holding 57 per cent of the total assets of the business at the end of 1958. The detail of these reports also permits analysis of the changing composition of the return flow of funds to investment departments during the 1957-58 period.

The return flow of funds from mortgage investments is estimated at \$2,800 million for 1957, rising to \$3,180 million in 1958. About two-thirds of this flow was from contractual amortization payments, together with a small portion of "partial" or "privilege" prepayments, and the increase is mainly a function of the larger volume of mortgage holdings. The other third of the mortgage flow was from cash repayments in full, which removed the loan from the companies' books. Such transactions mainly reflect the paying-off of outstanding mortgages when a residence or other property is sold by the owner and, to a lesser extent, the refinancing of the mortgage (with another lender) at lower interest rates. The upward trend in "paid-in-fulls" during 1958 probably stems from both the more active resale market in residences and the ability of some mortgagors to refinance on easier terms during that year. Small amounts of mortgages have been sold outright in the secondary market, but the cash flow from this source has been negligible.

Bond maturities, which include consideration received on serial maturities and scheduled sinking funds, rose from \$710 million in 1957 to an estimated \$900 million in 1958. Contingency sinking funds are usually based on the borrower's right to prepay the loan at a faster rate in the event of higher earnings; the decline in corporate profits during 1958 may explain the downturn in this form of cash flow from \$120 million in 1957 to \$100 million in 1958. Other security calls at the option of the borrower usually reflect refunding operations designed to take advantage of lower interest

scheduled amortization of bonds and mortgages. The present treatment differs from Loewy's approach to cash flow, in that prepayments and refinancing, outright sales, and adjustments in "cash position" are included in the concept of cash flow available for new long-term investment (see Harris Loewy, "Net Cash Moneyflows through Life Insurance Companies," *Journal of Finance*, December, 1956, p. 442).

rates, which probably explains the rise from \$230 million to \$300 million in this type of cash flow during 1958.

Outright sales of securities from portfolio represent an important item in the cash flow of life insurance companies, amounting in 1958 to an estimated \$620 million in long-term government securities and \$790 million in corporate, municipal, and other securities. Such sales are entirely at the option of the life company and depend upon a number of conditions. Foremost is the desire to liquidate present holdings in order to improve yield by investment in other assets. The willingness to liquidate depends upon what losses must be taken, measured against the gain to be ultimately derived from reinvestment at a higher yield. Outright sales are seldom planned over any extended period ahead but typically arise as investment officers face particular opportunities to switch their holdings to improve the yield, strengthen quality, or broaden diversification of the portfolio. The increase in outright sales of governments during 1958 may have been facilitated by the relatively high level of bond prices during the first few months of the year; in any case, the present volume is doubtless low by historical standards, since the actual holdings of marketable long-term governments have fallen to about 6 per cent of total assets, against 45 per cent at the end of World War II. Outright sales of other securities have recently been larger than sales of governments and rose from an estimated \$700 million in 1957 to \$790 million in 1958.

About \$150 million in cash flow resulted from sales and repayments from other types of assets, principally real estate and transportation equipment.

In arriving at the total cash flow made available for long-term investments, it is necessary to take account of adjustments in "cash position," which is defined to include cash and bank deposits and temporary investments in the form of short-term government securities and commercial paper. The purpose of such holdings is to provide a fund of liquid assets with which to meet scheduled disbursements of funds previously committed and to maintain a working balance sufficiently flexible to fill the gap between the inflow and outflow of investible funds. Thus the drawing-down of cash or short-term securities results in an augmented flow of funds into long-term investments, while the accumulation of cash and short-term securities reflects a temporary diversion of the cash flow away from long-term investment outlets. As Table 3 shows, there was a moderate net increase in cash position in both 1957 and 1958; however, the annual data fail to show the wide swings in cash position

from quarter to quarter, largely reflecting seasonal shifts in other types of cash flow.

To summarize briefly the major factors which influence the trend in cash flow available for gross new investment, the first item is the net inflow from policyholders' saving, which is responsive to trends in interest rates and unemployment and also to the fear of

TABLE 3*
GROSS FLOW OF INVESTMENT FUNDS (CASH FLOW) THROUGH
UNITED STATES LIFE INSURANCE COMPANIES
(In Millions of Dollars)

| | 1957 | | 1958 | |
|--|---------|----------|----------|----------|
| | Amount | Per Cent | Amount | Per Cent |
| Net inflow of funds (Table 1)..... | 5,201 | ..... | 5,339 | ..... |
| Less: adj. for due and uncollected items..... | 233 | ..... | 188 | ..... |
| Net new money—cash basis.... | 4,968 | 49.8 | 5,151 | 47.0 |
| Mortgages (total)..... | (2,800) | (28.1) | (3,180) | (29.0) |
| Amortization and partial prepayment..... | 1,960 | 19.6 | 2,110 | 19.2 |
| Other cash repayments in full.... | 810 | 8.1 | 1,060 | 9.7 |
| Outright sales..... | 30 | 0.3 | 10 | 0.1 |
| Securities (total)..... | (2,190) | (21.9) | (2,170) | (24.7) |
| Bond maturities..... | 710 | 7.1 | 900 | 8.2 |
| Contingency sinking funds..... | 120 | 1.2 | 100 | 0.9 |
| Other security calls..... | 230 | 2.3 | 300 | 2.7 |
| Outright sales: United States gov't long-term..... | 430 | 4.3 | 620 | 5.7 |
| Other securities..... | 700 | 7.0 | 790 | 7.2 |
| All other sales and repayments..... | 120 | 1.2 | 150 | 1.4 |
| Net increase (—) in cash and short-term investments..... | —100 | —1.0 | —220 | —2.0 |
| Total available for long-term investments..... | 9,978 | 100.0 | 10,971 | 100.0 |

* Data on repayments and sales are estimated from reports to the Life Insurance Association of America on the actual cash flow of 39 life insurance companies holding 57 per cent of total assets at the end of 1958. Other data are from tabulations of the LIAA and the Institute of Life Insurance.

a depreciating value of the dollar. Second, scheduled amortization payments from bonds and mortgages provide a fairly stable and rising cash flow dependent largely upon the total of such assets in a growing portfolio. Third, repayments made at the option of the borrower are related to the turnover of houses in the resale market, to shifting interest-rate incentives to refinance outstanding loans, and perhaps to the trend of corporate earnings. Finally, the options open to life insurance companies in controlling their cash flow consist of adjustments in "cash position," including short-term security holdings, and the outright sale of long-term securities from portfolio.

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| <u>L12</u> | 705/40.cor. and principal and interest and taxes and insurance | 11 | <u>L12</u> |
| <u>L11</u> | L10 and @ad<20011113 | 209 | <u>L11</u> |
| <u>L10</u> | 16 and (settlement or closing) | 306 | <u>L10</u> |
| <u>L9</u> | L8 and estate | 5 | <u>L9</u> |
| <u>L8</u> | (portion near2 payment).ab. | 106 | <u>L8</u> |
| <u>L7</u> | 16 and (payment adj server) | 24 | <u>L7</u> |
| <u>L6</u> | (split\$ or divid\$ or distribut\$) near2 (payment or disbursement) | 1050 | <u>L6</u> |
| <u>L5</u> | 14 and (payment adj server) | 2 | <u>L5</u> |
| <u>L4</u> | (real adj estate) near3 (settlement or closing) | 79 | <u>L4</u> |
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